



NUMBER AND ORDER OF PLANS.	
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OFFICE OF
SUPERINTENDING CONSTRUCTOR
FOR U. S. NAVY
QUINCY, MASS. JULY 31 1920
CONSTRUCTOR'S NO. 42
FORWARDED WITH LETTER NO. 21-2-D
R. Williams
SUPERINTENDING CONSTRUCTOR

DESTROYERS 79 TO 86 & 95 TO 102.

GENERAL INFORMATION

LENGTH BETWEEN PERPENDICULARS (FP & STA 40)	310'-0"
PROTECTION FORWARD OF FP	3'-0"
AFT	1'-4 1/2"
LENGTH OVER ALL	314'-4"
ON DWL	310'-11"
LENGTH OF STRAIGHT KEEL (FT TO FR 160)	249'-0"
BREADTH, MOLDED, EXTREME	30'-11"
EXTREME OVER GUARDS	31'-8 1/2"
MOLDED AT TRIAL WL	30'-8"
RATIO, LENGTH TO BEAM	10.08
DRAFT, DESIGNERS WL TO BOTTOM OF KEEL	40'-10"
DISPLACEMENT FULL RESERVE WATER (K TONS)	1185
(ESTIMATED 573.5 TONS FUEL & 62.5 TONS RESERVE FREE WATER)	
DEPTH MID MAIN DECK AT SIDE FR 160 (1/2 FORD OF 11 P)	18'-0"
DISPLACEMENT TONS PER INCH AT 1/4" DRAFT	18.50
AREA, MIDSHIP SECTION TO DWL 9'-13 1/4 IN 56 FEET	547.0
AREA DWL PLANE	1033.0
AREA WETTED SURFACE TO 9'-13 1/4 IN	10370
BREASTH WATERLINE (MOLDED, 1/2 THICKNESS OF PLATE)	30'-10"

C.G. OF DWELL PLAN OF FR 80	(WHICH IS 12 FORD OF M.P.)	6'-4"
C.B. AFT OF FR 88		1'-4"
TRANSVERSE METACENTRE ABOVE C.G. (FROM CONJUNCTION EXM. KIMBERLY)		2.08 FT.
LONGITUDINAL		743.40 F.
COEFFICIENT OF FINENESS BLOCK		4.84
	MID-SECTION	7.48
	DWELL	6.86
	CYLINDRICAL	6.67
RUDDER AXIS FORD OF STA. 40		6'-4"
NO. OF FRAMES - SPACING 2'		177
NO. OF WATERTIGHT COMPTS.		45
SHAFT STRUTS FORD OF A.P.		21'-7"
SHAFTS INCLINE DOWN AND AFT P & S		3° 35' 15"
SHAFTS DIVERGE FROM 3 P.S.		2° 42' 38"
6 OF SHAFT FROM 6 OF SHIP AT FR 99		2'-7"
" " " " " " " " " " " "	130	3° 11"
" " " " " " " " " " " "	ABOVE MOLDED BASE AT FR 99	10'-4"
" " " " " " " " " " " "	130	6'-2"
PROPELLERS TWO 3 BLADED		9'-0"
" " " " " " " " " " " "	PITCH	9'-1"
EXPANDED AREA IN DIA FT.		44.9
PROTECTED		37.8
6 FORD OF A.P.		17'-0"

MAIN PROPELLING MACHINERY

THERE ARE TWO PROPELLING SHAFTS AND PROPELLERS EACH DRIVEN THROUGH A REDUCTION GEAR BY ONE H.P. ONE I.P. AND ONE L.P. HIGH SPEED CURTIS TURBINES. THE TURBINES DRIVING THE STARBOARD PROPELLER ARE ARRANGED IN THE AFTER ENGINE ROOM. THE SHAFTS TURNING OUTBOARD

THE H.P. AND I.P. TURBINES ARE ARRANGED IN TANDEM AND CONNECTED DIRECTLY TO THE OUTBOARD PINION OF EACH REDUCTION GEAR AND THE L.P. AND ASTERN TURBINES, ARRANGED IN ONE CASING, ARE CONNECTED DIRECTLY TO THE INBOARD PINIONS, BOTH INBOARD AND OUTBOARD PINIONS, IN ONE CASING, DRIVING ONE MAIN GEAR WHICH IS COUPLED DIRECTLY TO ITS RESPECTIVE LINE SHAFT. R.P.M.

H.P. & I.P. TURBINES	3200
L.P.	3000
PROPELLERS	452
S.H.P. TOTAL	27000

CONDENSERS
TWO CONDENSERS CURVED TUBE TYPE
TOTAL COOLING SURFACE ALL CONDENSERS 1519 SQ. FT.

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FOUR YARROW 'EXPRESS' TYPE LBS PRESS.(WORKING)	245
TOTAL HEATING SURFACE IN SQ.FT.	27540
NO. OF OIL BURNERS (12 PER BOILER)	48
DIAM. OF MAIN STEAM PIPE	10
FOUR FUNNELS, HEIGHT ABOVE KEEL (AVERAGE)	47.9

4-4 GUNS MARK IX MOUNT MARK XII

NO 1 MAIN DK @ AT FR 28	TRAIN 90°	FORD — 65°	AFT P & S
NO 4 MAIN DK @ AT FR 163	"	55°	" 90° " "
NO 2 TOP OF GALLEY	FR 76 PORT	"	87½° " 85° " P
NO 3 TOP OF GALLEY	"	87½°	" 83° " S
NO 3 DECK HOUSE	" 76 STBD	"	87½° " 83° " S

2-1 PORT AUTOMATIC ANTI AIRCRAFT GUNS MARK VI MOUNT MARK V
NO. 1 AUTOMATIC ANTI AIRCRAFT GUN MAIN DECK FR 36-4
NO. 2 " " " " " " FR 61 PORT

4-68M.X21" TRIPLE TORPEDO TUBES- DECK

NO.1	MAIN DECK	FR. 98 PORT	TRAIN	60° FORD	60° AFT	P
NO.2	"	FR. 106 STBD	"	60° "	60° "	P
NO.3	"	FR. 127 PORT	"	60° "	60° "	P
NO.4	"	FR. 138 STBD	"	60° "	60° "	P

1 COMMANDING OFFICER	PETTY OFFICERS	}	112
7 WARD ROOM OFFICERS	CREW		
12 CHIEF PETTY OFFICERS	TOTAL ON BOARD	}	132

12 CHIEF PETTY OFFICERS		TOTAL ON BOARD		12	
<u>LIST OF BOATS</u>					
1- 24 FOOT MOTOR SAILING LAUNCH	NO. OF MEN	15			
1- 24 FOOT WHALEBOAT	" " "	21			
1- 21 FOOT MOTOR DORY	" " "	10			
1- 14 FOOT DORY	" " "	5			
1- 10 FOOT PUNT	" " "				

TYPE OF VESSEL	NO. OF MEN	NO. OF BOATS
1-24 FOOT MOTOR SAILING LAUNCH	19	19
1-24 FOOT WHALEBOAT	21	21
1-21 FOOT MOTOR DORY	16	16
1-14 FOOT WHERRY	8	8
1-10 FOOT PUNT	11	11

FRESH WATER TANK	B-103	2679 GALS.	TONS FW.	10.6
"	B-104	2079 "	"	10.6
RESERVE FEED	C-101	6872 "	"	25.5
COFFERDAM	A-116	4497 _h	"	16.7

COMP	NO.	GAL.	WT.	TONS
COMPE	A-101	1513	5.62	5.78
"	A-102	3433	12.75	13.11
"	A-109	3436	13.51	13.90

COMPT. A-103	7390 GALS.	988 CU.FT.	COMPT. A-114	6130 GALS.	819.5 CU.FT.
A-104	7390 "	988.0 "	A-115	8510 "	1137.7 "
A-107	7150 "	989.2 "	D-101	9880 "	1317.3 "
A-108	7150 "	989.2 "	D-102	9580 "	1280.8 "
A-113	6130 "	819.5 "	D-103	10090 "	1348.9 "
A-104	6290 "	824.3 "	TOTAL CAPACITY	61790	10432.4

D.W.L. IS 9'-1 3/4" ABOVE M.L.D. BASE LINE AND 9'-1 3/4" ABOVE BOTTOM OF KEEL.
MAST: 10' TO FORECASTLE DECK; 11' TO BOTTOM OF MAIN TRUCK LIGHT 25'-10 1/2"

MASTS- TO TOP FOREMAST 95-10% TO BOTTOM TO MAIN TRUCK LIGHT 45-10%

SIGNAL YARD FOREMAST 88'-3"

SEARCHLIGHT PLATFORM FORD 29'-3"

BRIDGE (ON FR. 48) AT SIDE	29' 3"	AT CENTERLINE	29' 0"
TOP OF GALLEY HOUSE (FR. 76)			20' 8"

TOP OF MAIN DECK PLATING AT STERN	8'-3 1/2"
TOP OF AFTER DECK HOUSE (PR. 150)	16'-8"
SMOKE STACKS	38'-7 1/4"

CEN OF GUN NO.4 AT FR 76 E - 24-2 1/2 " CEN OF GUN NO.3 AT FR 76 S - 24-2 1/2 "

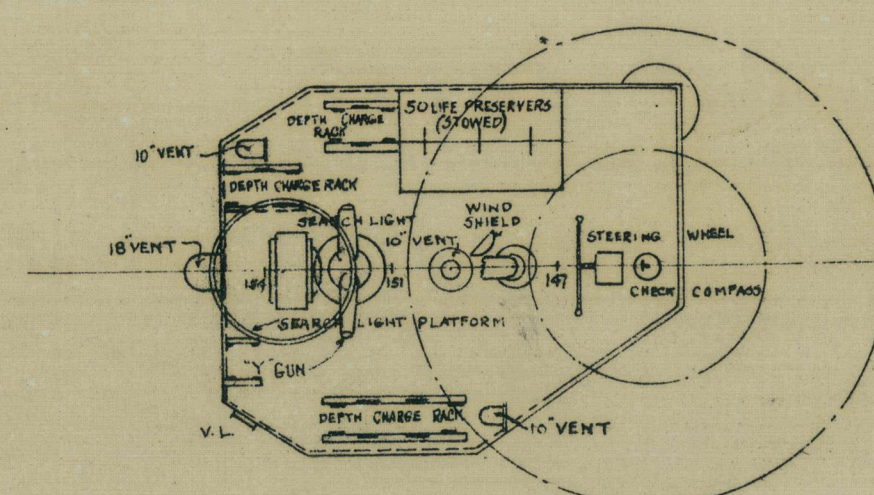
" " NO.2 " " 163 E - 12-10 3/4 " " " PER GUN NO.1 AT FR 36 E - 19-5 1/2 "

" " NO.1 " " 28 E - 19-9 3/4 " " " POS " NO.2 " " 61 P - 18-1 1/2 "

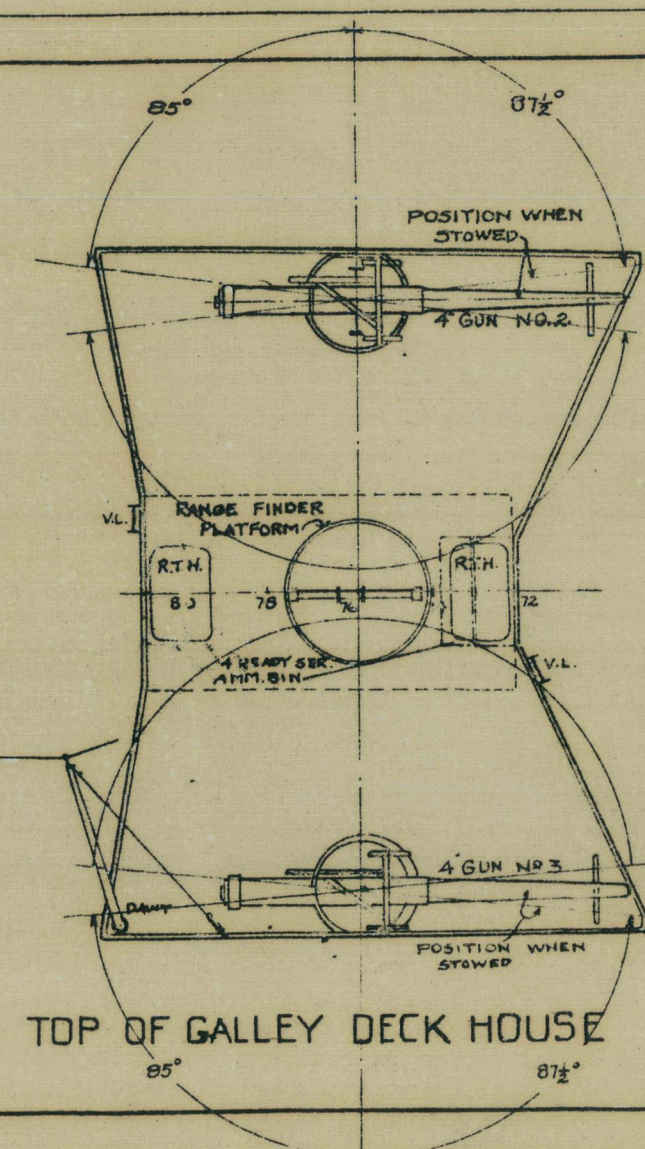
" " TOP OF TOWER NO.1 AT FR 90 S - 14-0 " " " TOP OF TOWER NO.2 AT FR 127 E - 12-11 3/4 "

TORP. TUBES NO.1 AT FR. 98 R-14-9 TORP. TUBES NO.3 AT FR. 127 P-13-11 1/2
" " " " NO.2 " 106 S-14-4 " " NO.4 " 138 S-13-4 1/2
" " SEARCHLIGHT AT FR. 49-33-2 " SEARCHLIGHT AT FR. 183-26-6"

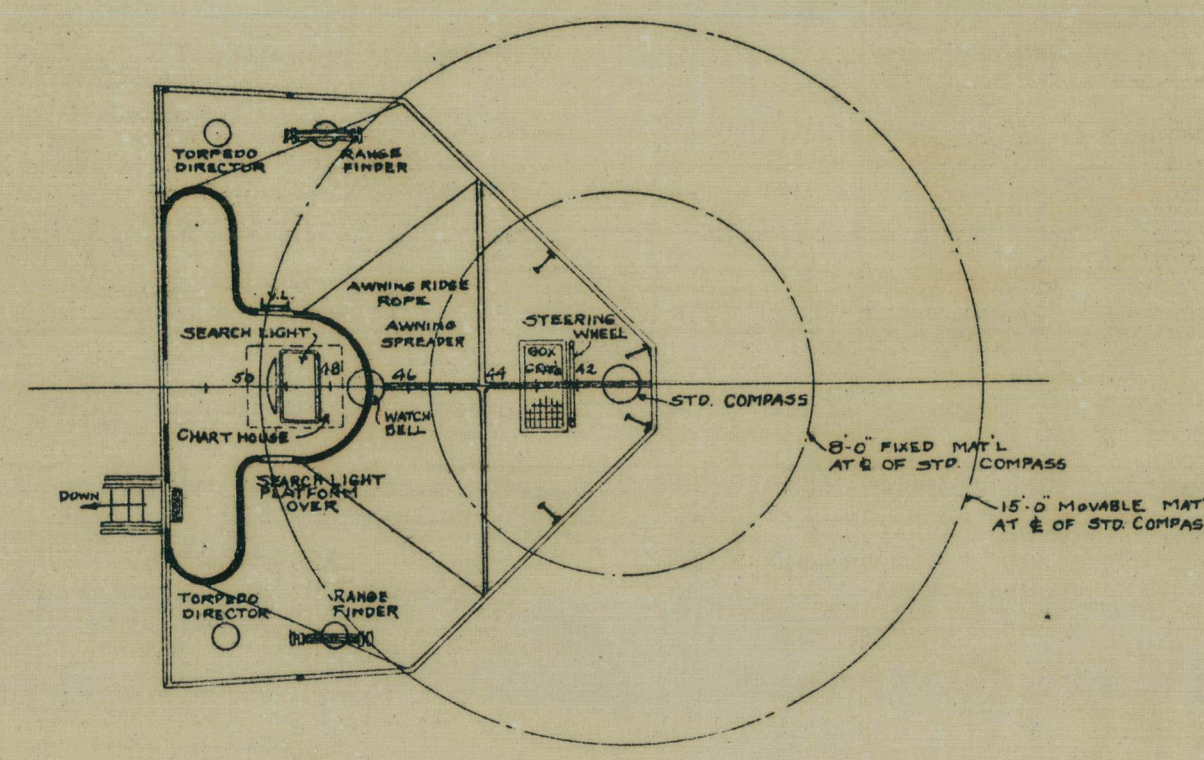
LITTLE AND CLASS T.B.D. 79-86
BELL AND CLASS T.B.D. 95-102



TOP OF AFTER DECK HOUSE.

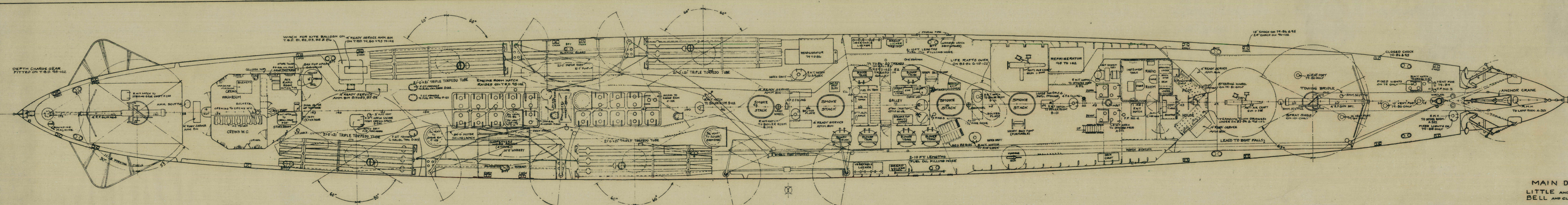


TOP OF GALLEY DECK HOUSE



BRIDGE

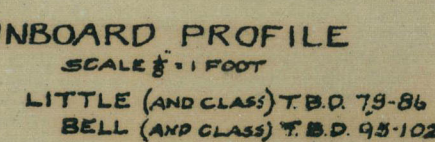
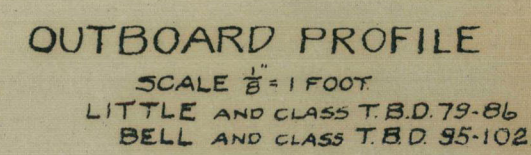
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BELL AND CLASS T. B. D. 95-102.



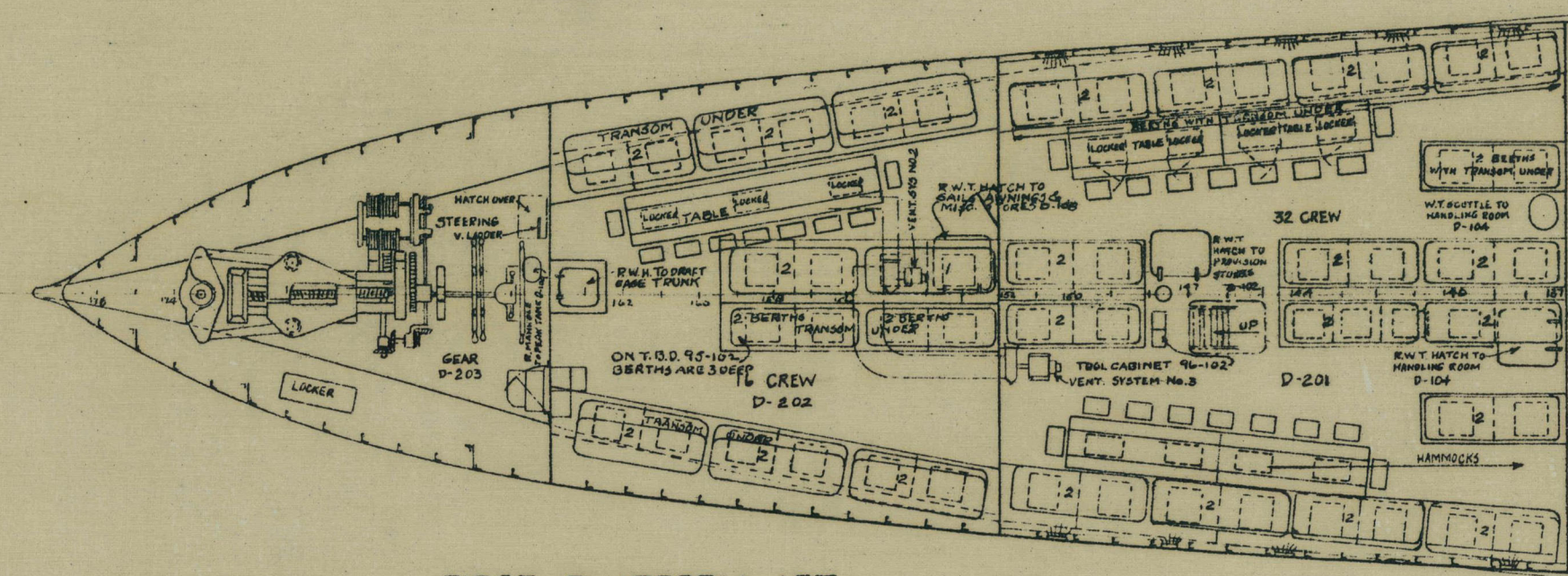
MAIN DECK.

LITTLE AND CLASS T.B.D. 79-86.
BELL AND CLASS T.B.D. 95-102.

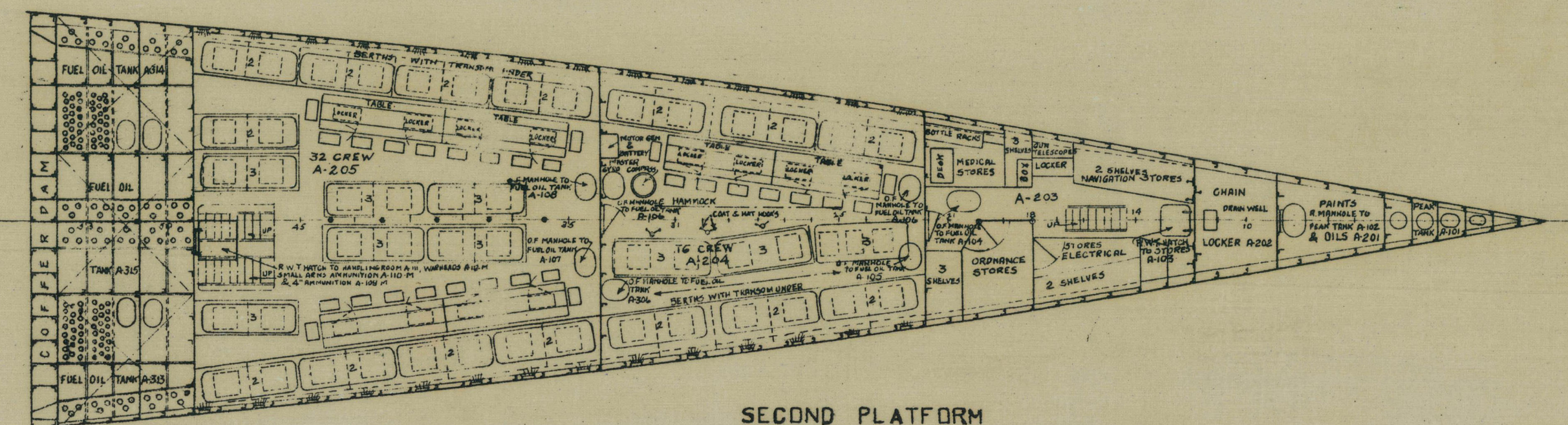
U.S.S. Tansdale... #93140.



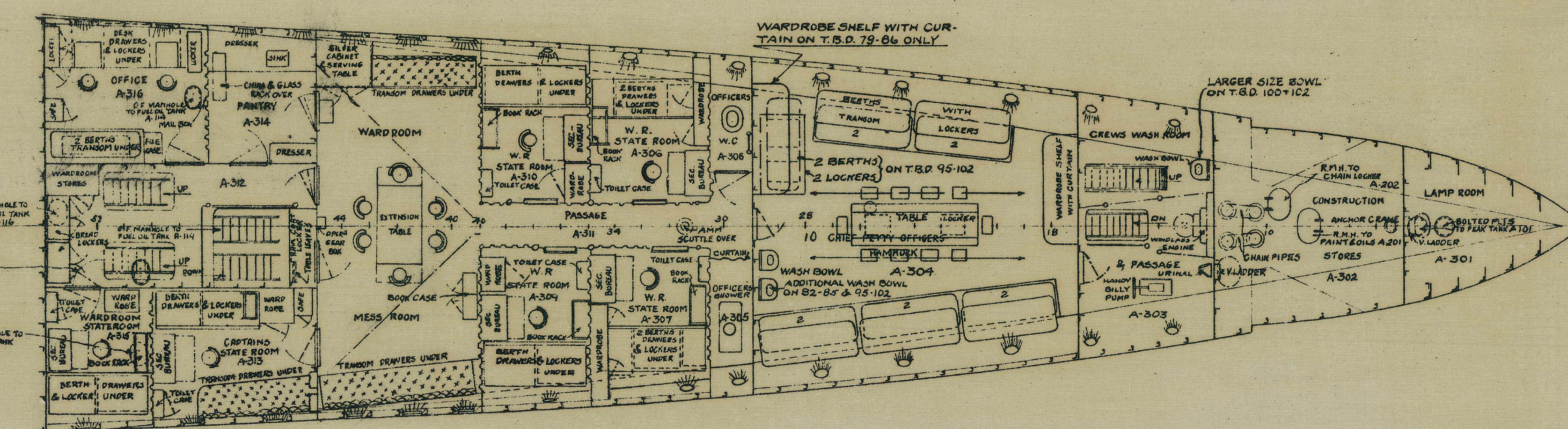
U.S.S. Lansdale .. # 93140-7



FIRST PLATFORM AFT

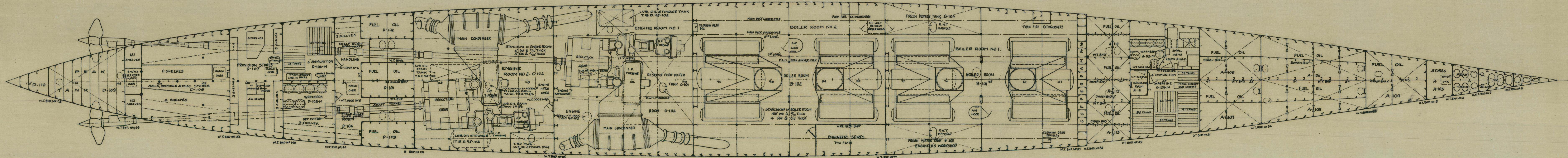


SECOND PLATFORM



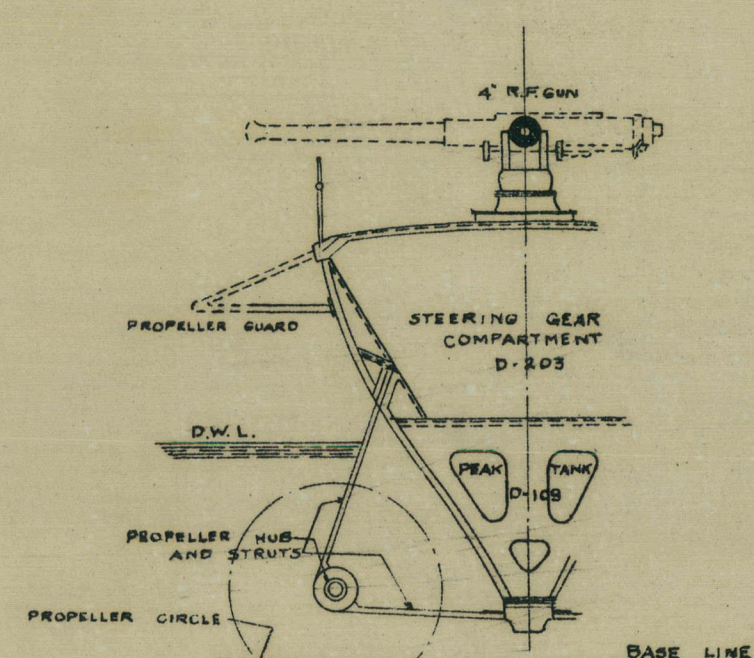
FIRST PLATFORM FORD

PLATFORM DECKS.
SCALE 1/8" = 1' FOOT
LITTLE (AND CLASS) T.B.D. 79-86
BELL (AND CLASS) T.B.D. 93-102

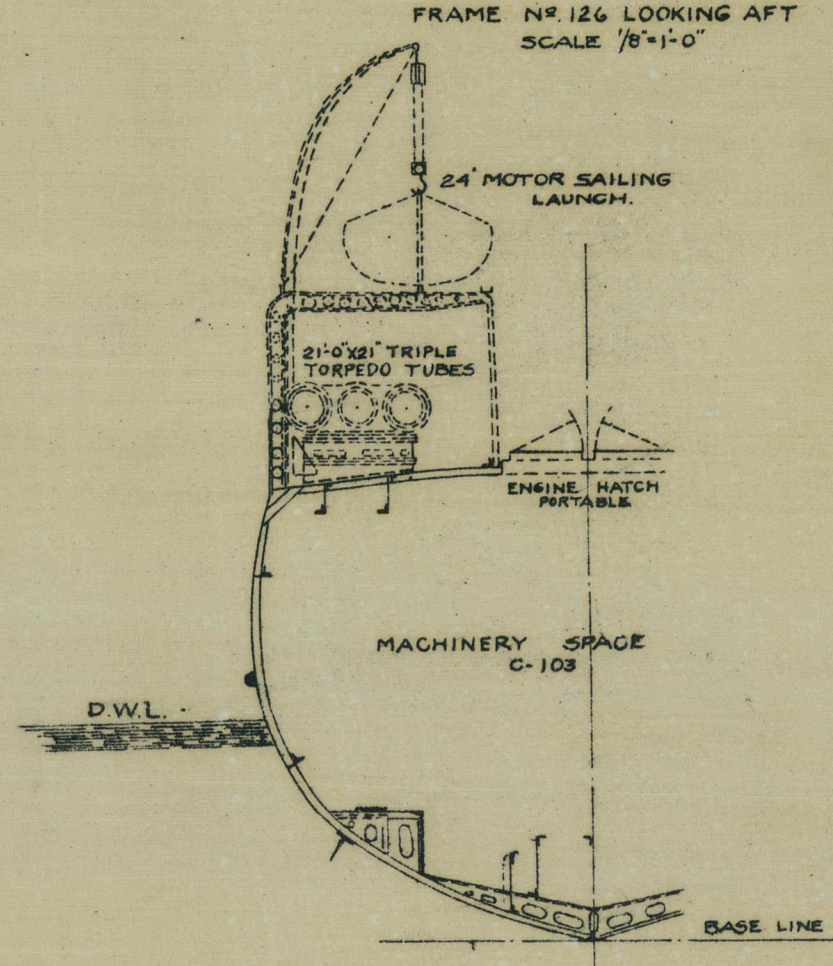


HULL
SCALE 1/8" = 1' FOOT
LITTLE (AND CLASS) T.B.D. 79-86
BELL (AND CLASS) T.B.D. 93-102

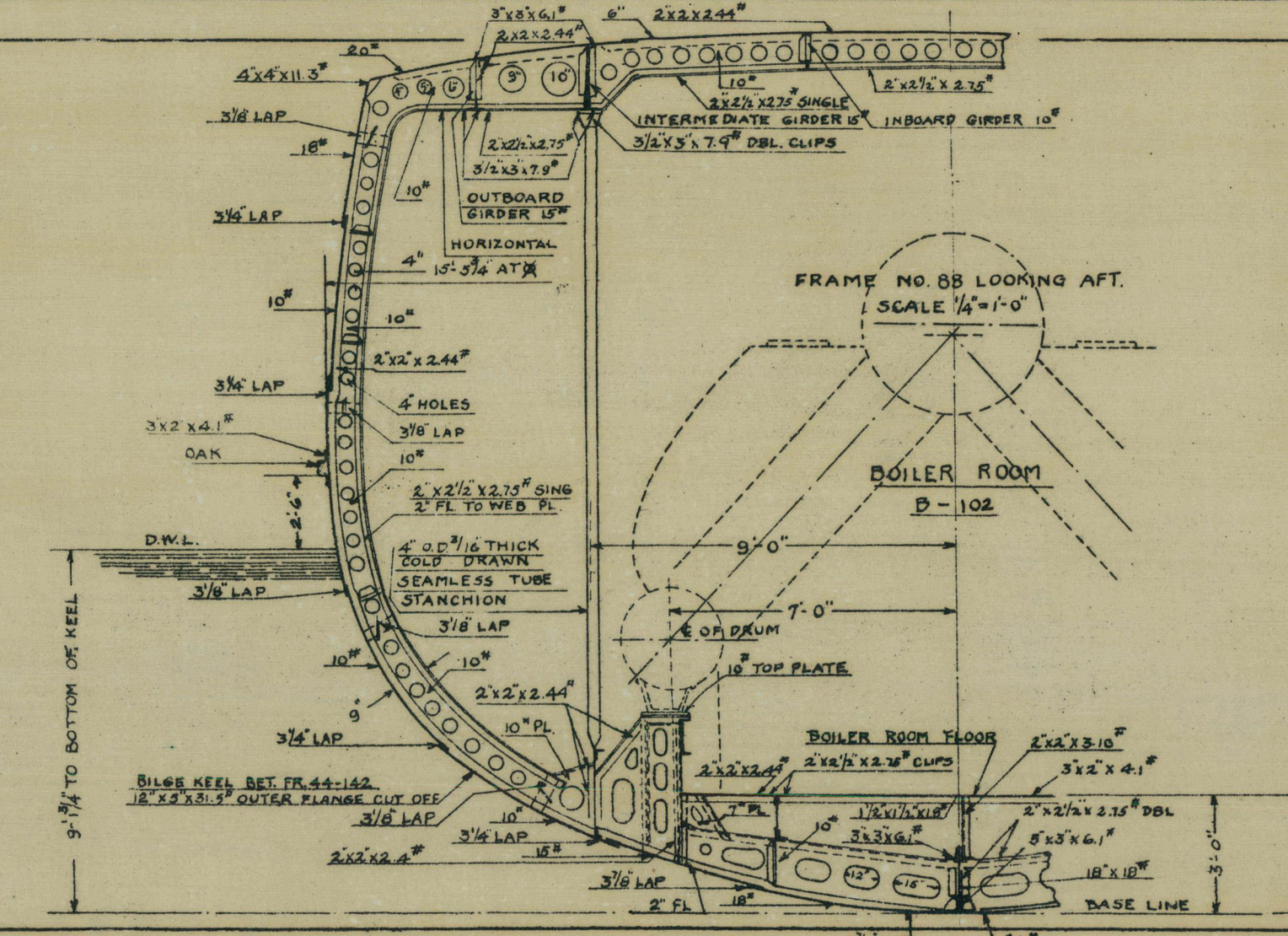
FRAME NO. 164 LOOKING AFT.



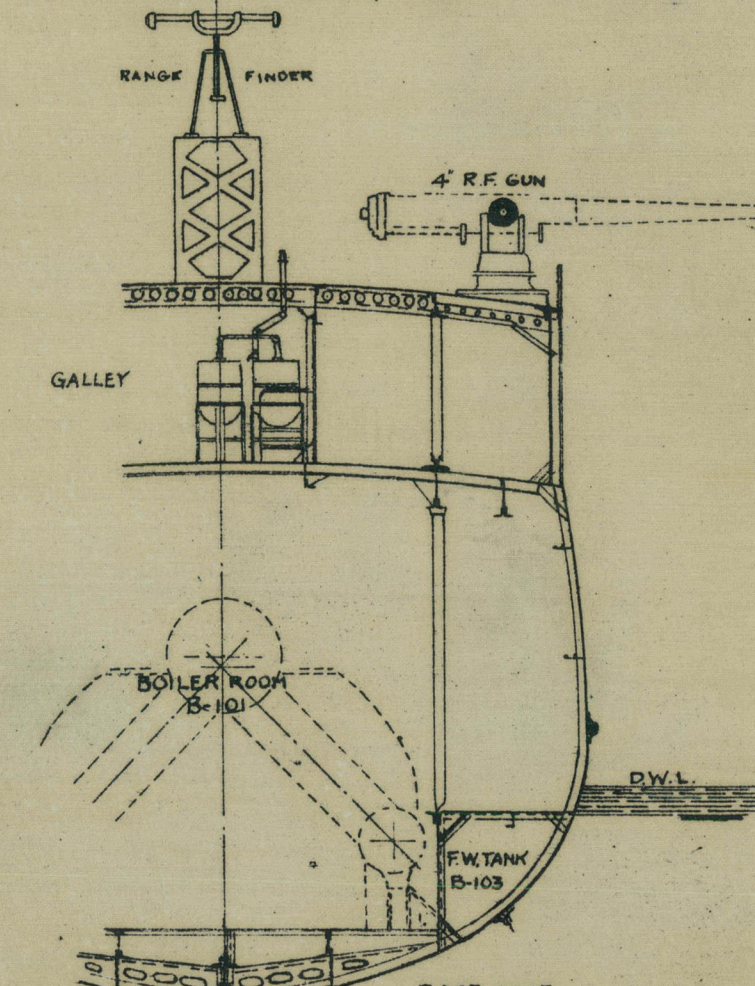
FRAME NO. 126 LOOKING AFT
SCALE 1/8" = 1' FOOT



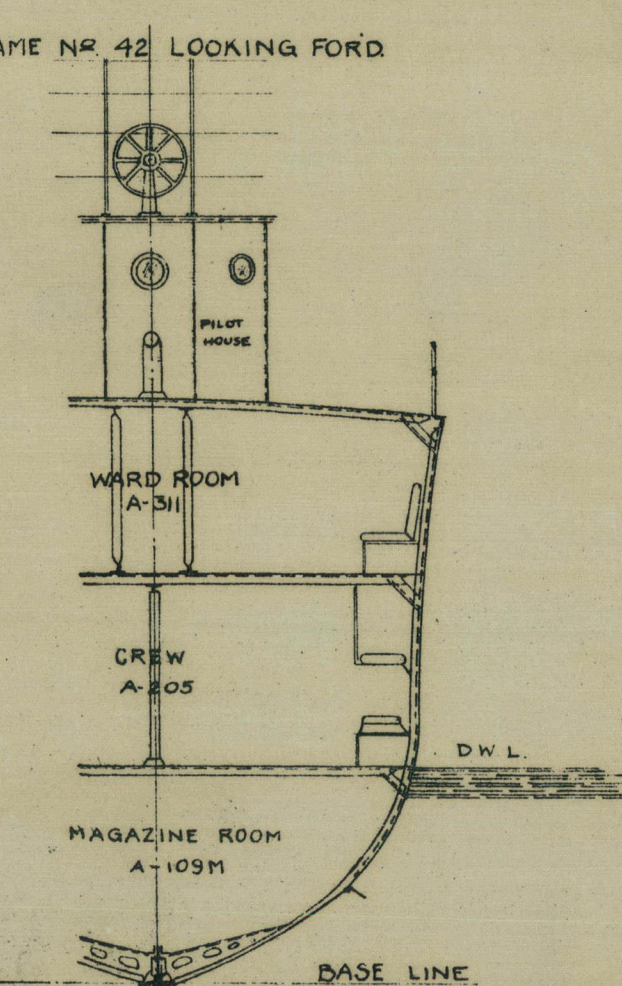
FRAME NO. 88 LOOKING AFT.
SCALE 1/8" = 1' FOOT



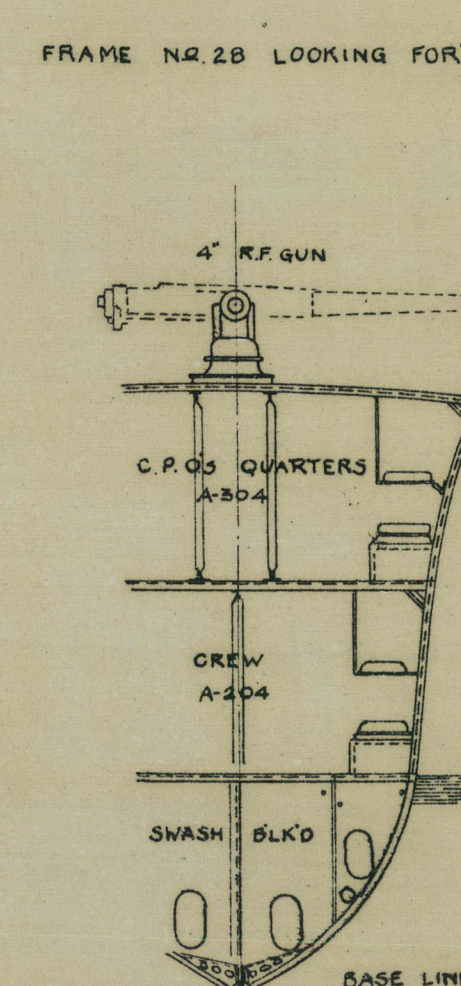
FRAME NO. 76 LOOKING FORD



FRAME NO. 48 LOOKING FORD



FRAME NO. 28 LOOKING FORD



GROSS SECTIONS
SCALE 1/8" = 1' FOOT
LITTLE (AND CLASS) T.B.D. 79-86
BELL (AND CLASS) T.B.D. 93-102